

Behavioral Health Program Element



Needs of NASA Relevant to Behavioral Health Program

- Behavioral Health Management: Strategies and tools to assess, monitor, and manage clinical cognitive and behavioral health of crewmembers prior to and during spaceflight (crew cohesion, communications, selection), and for transition post-flight
- Performance Readiness: Predictive models, tools, and strategies for assessing, managing, and maintaining performance readiness of crewmembers (fatigue, overload, morale, stress) during spaceflight

Project Goals and/or Major Objectives

- Develop behavioral health prevention and maintenance system for continued crew health, safety, and performance for exploration missions

Basic Scope

- Operationally-relevant research related to clinical cognitive and behavioral health of crewmembers
- Ground-based studies using analog environments (Antarctic, NEEMO, simulations, and other testbeds)
- ISS studies (ISSMP) focusing on operational issues related to behavioral health outcomes and standards
- Technology development activities for monitoring and diagnostic tools
- Cross-disciplinary research (e.g., human factors and habitability research, skeletal muscle, radiation)

Research Plans

- Develop evidence base and conduct gap (and critical path) analyses for BHP
- Directed research to support development, validation, and implementation of BHP health and medical standards for exploration missions
- Focused summits and workshops for evidence based assessments and gap analyses
- Integration with human factors engineering and other disciplines

Connection to NSBRI Researchers

- Ongoing active program in NSBRI (top drawer researchers, advanced CRL/TRL)
- Team approach with NSBRI and NASA

Anticipated Deliverables

- Models and assessment tools (fatigue, overload, performance readiness, and psychosocial adaptation)
- Behavioral health maintenance strategies (individual and crew) for exploration missions (preflight, in-flight, and postflight rehabilitation)

Points of Contact

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